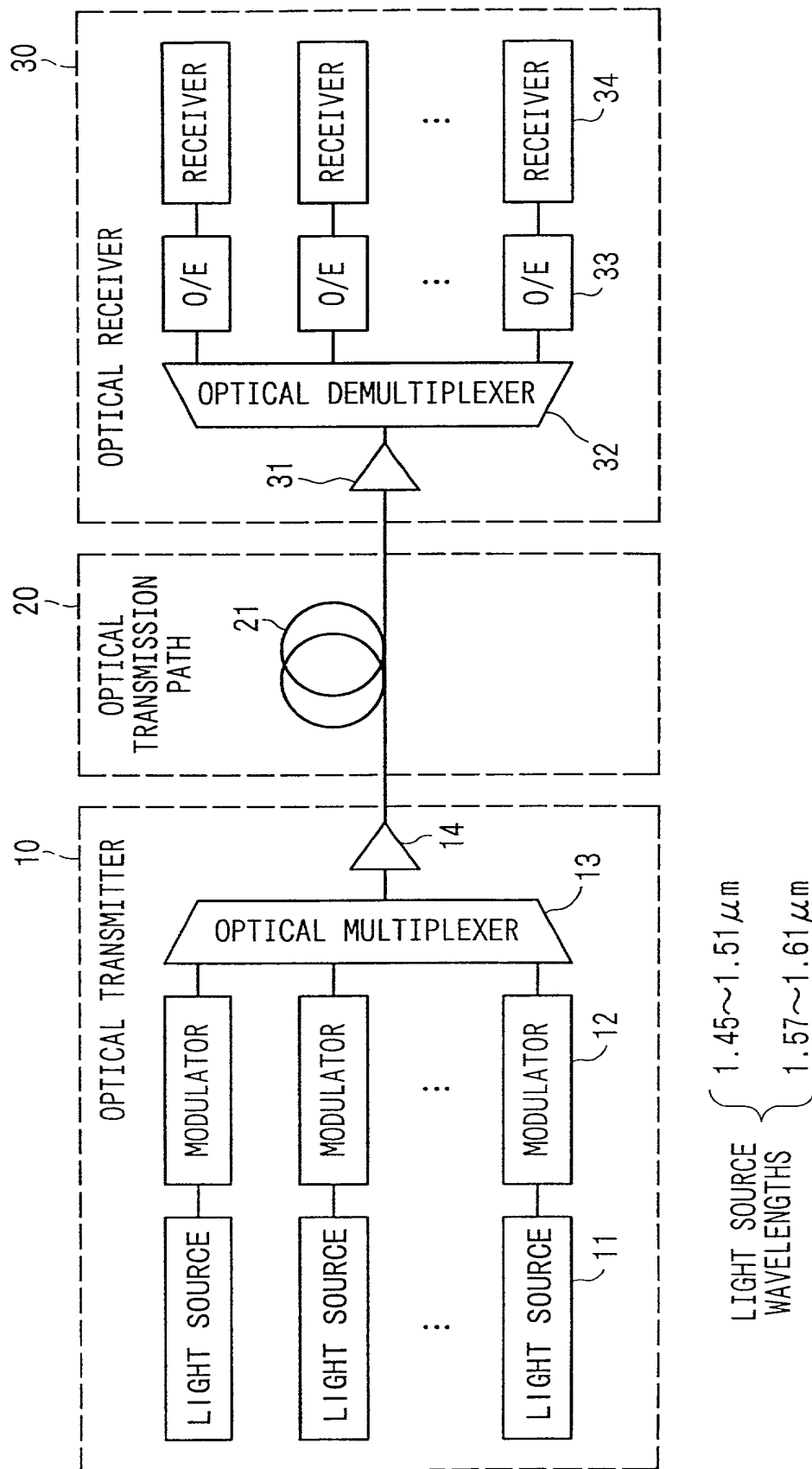


FIG. 1
STRUCTURE OF THE FIRST EMBODIMENT
OF THE PRESENT INVENTION



STRUCTURE OF THE SECOND EMBODIMENT
 OF THE PRESENT INVENTION

FIG.2

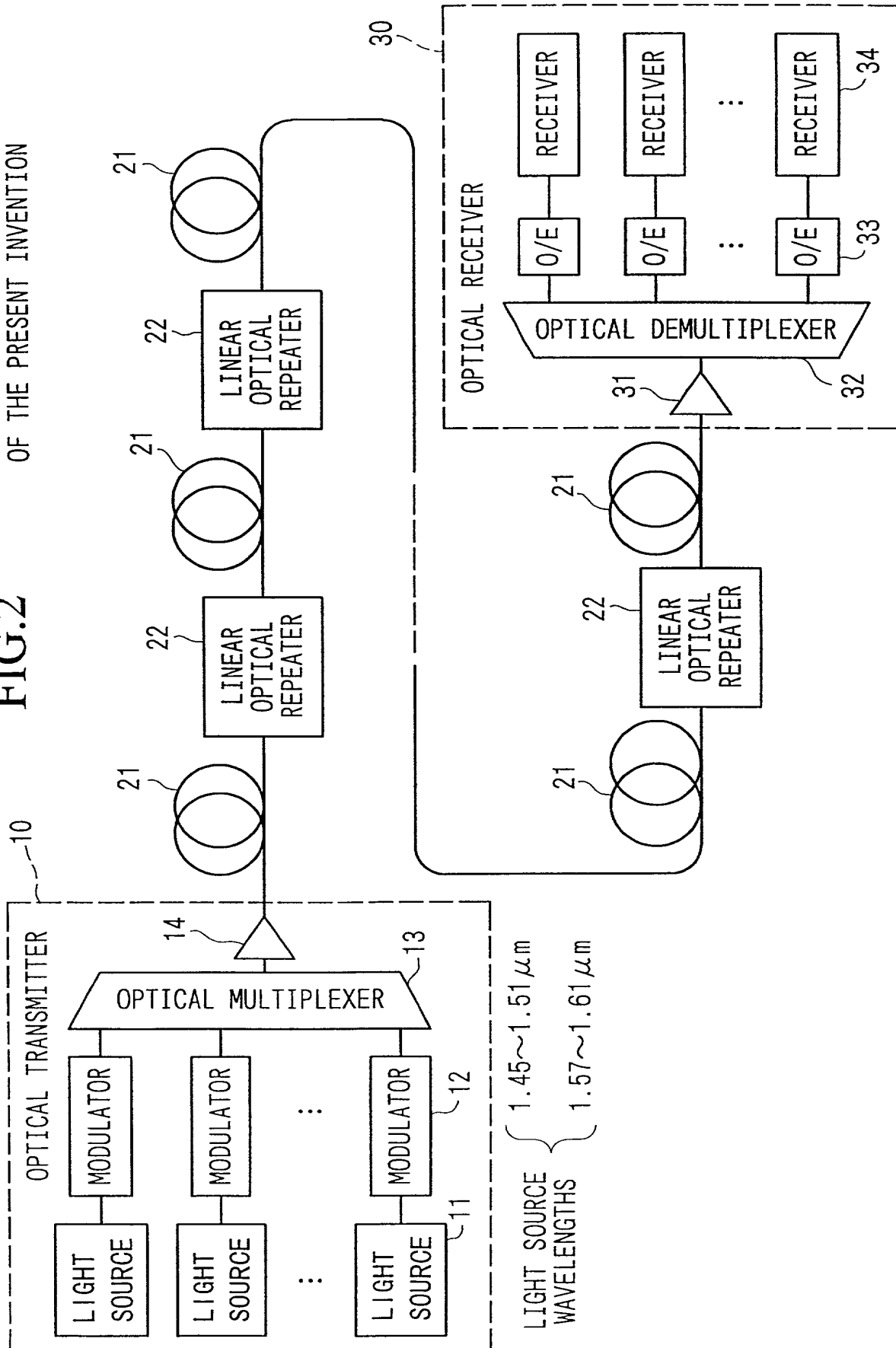


FIG.3

GAIN CHARACTERISTICS OF A Tm-DOPED
OPTICAL FIBER AMPLIFIER (TDFA)

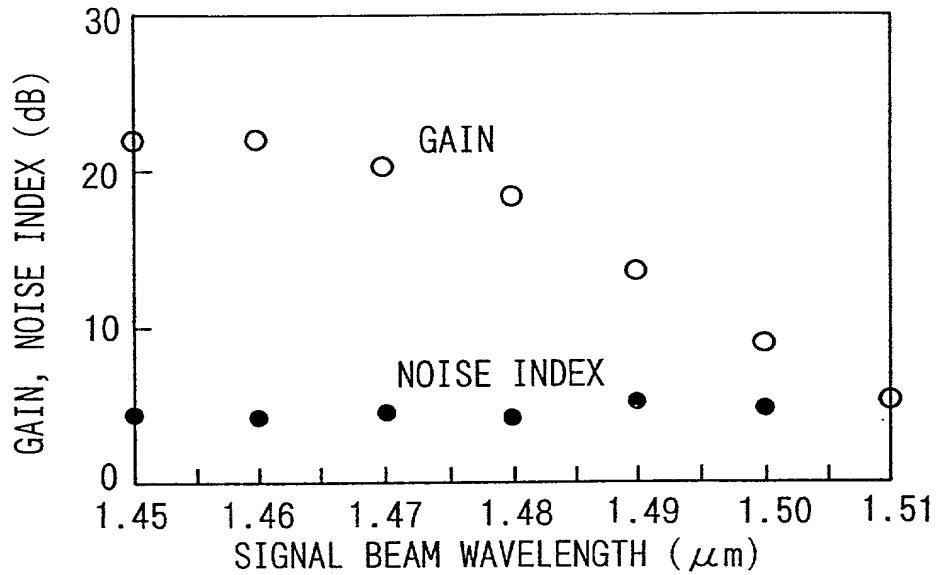


FIG.4

GAIN CHARACTERISTICS OF A Er-DOPED
OPTICAL FIBER AMPLIFIER (GS-EDFA)

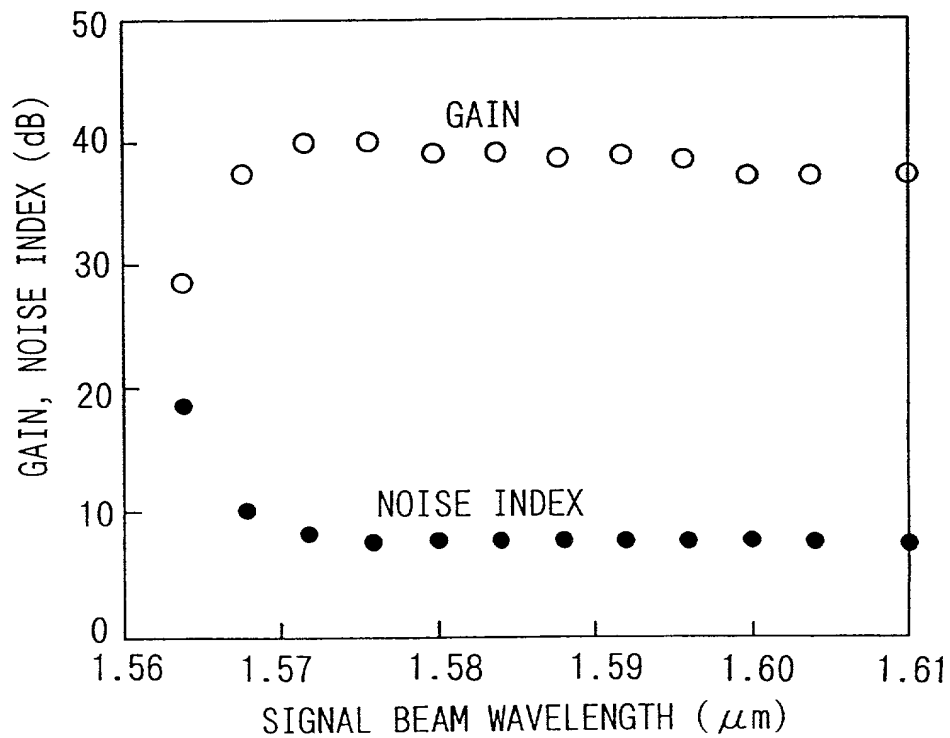


FIG. 5
STRUCTURE OF THE THIRD EMBODIMENT
OF THE PRESENT INVENTION

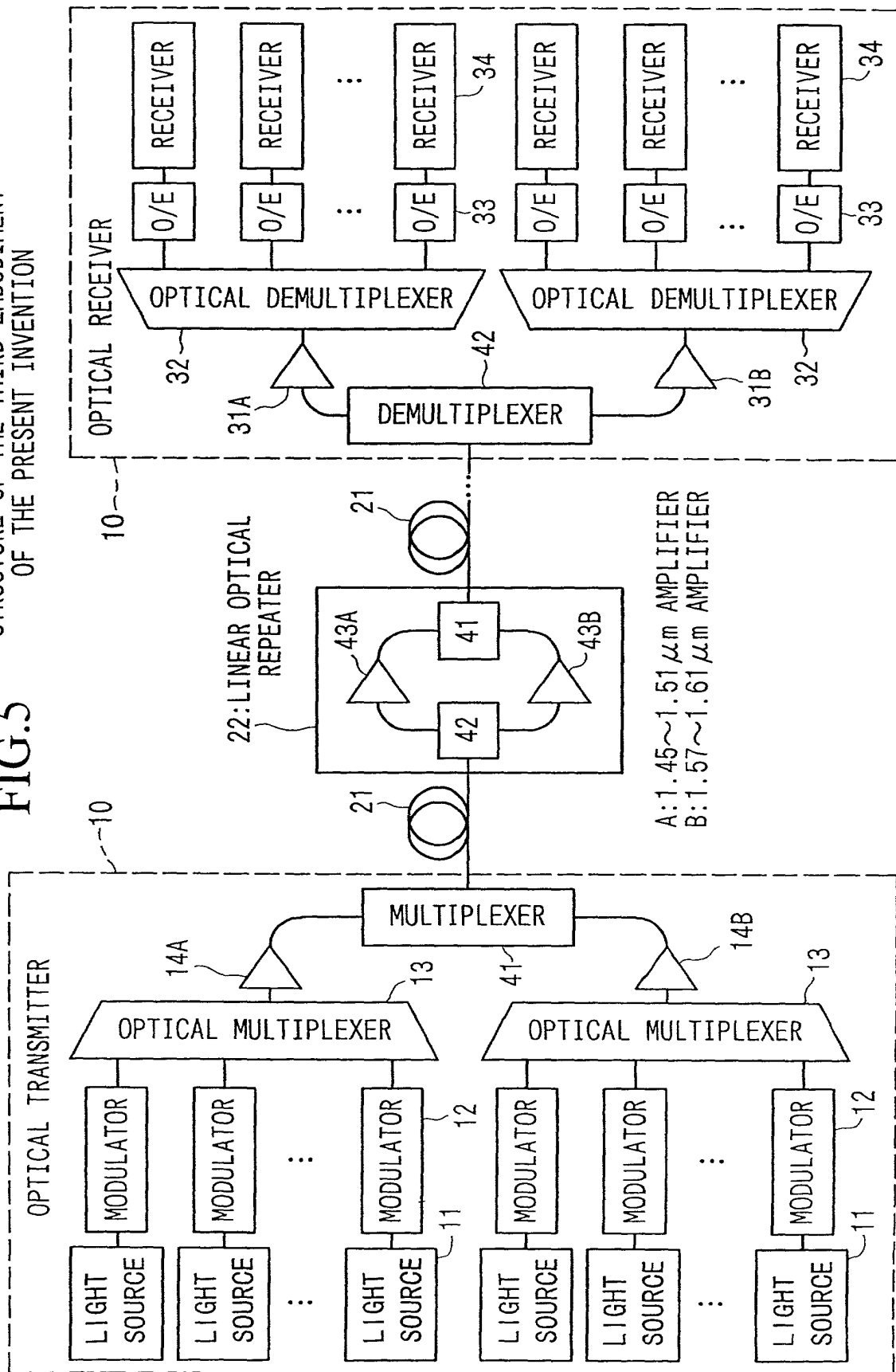


FIG.6

STRUCTURE OF THE FORTH EMBODIMENT
OF THE PRESENT INVENTION

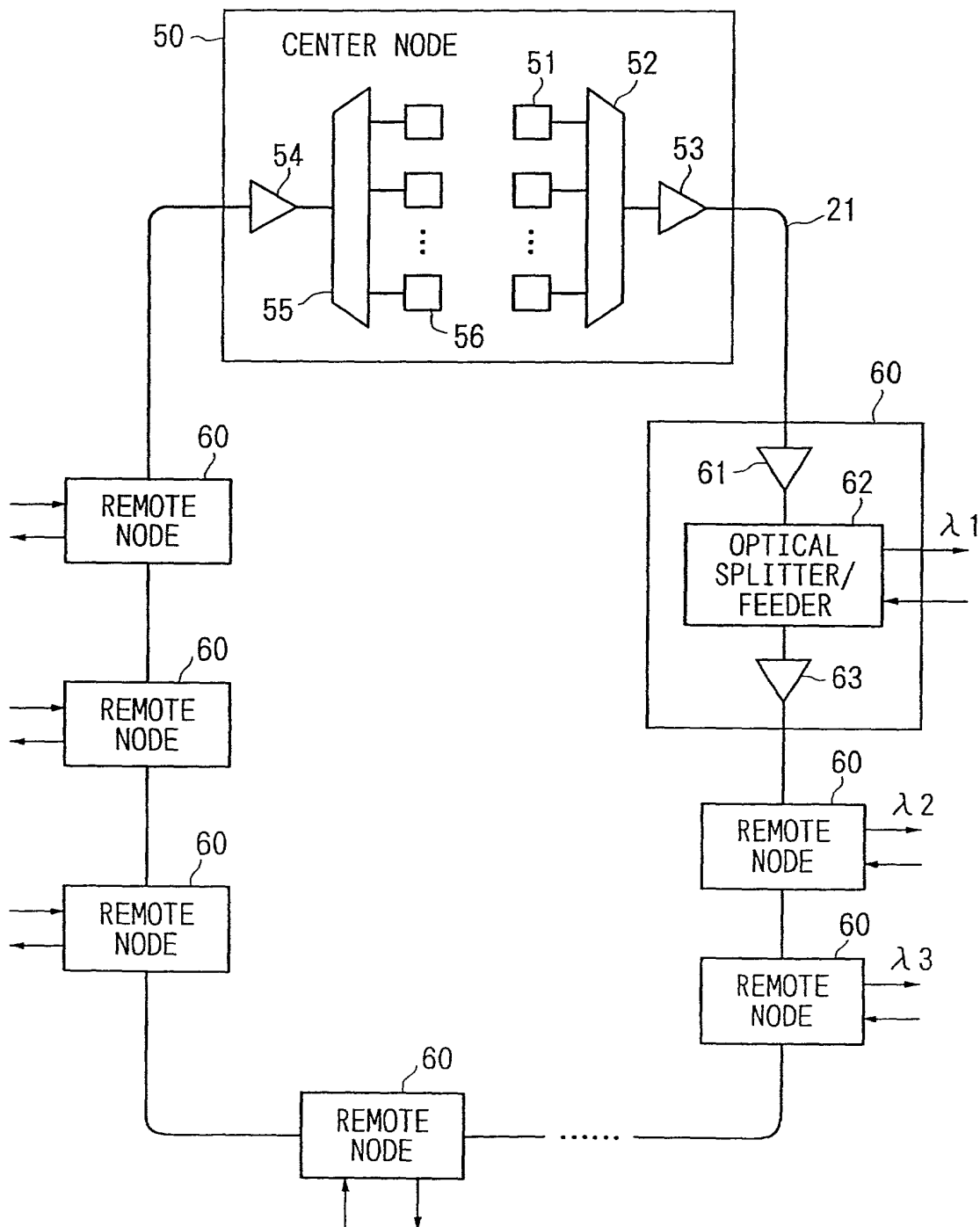


FIG. 7

STRUCTURE OF THE FIFTH EMBODIMENT OF THE PRESENT INVENTION

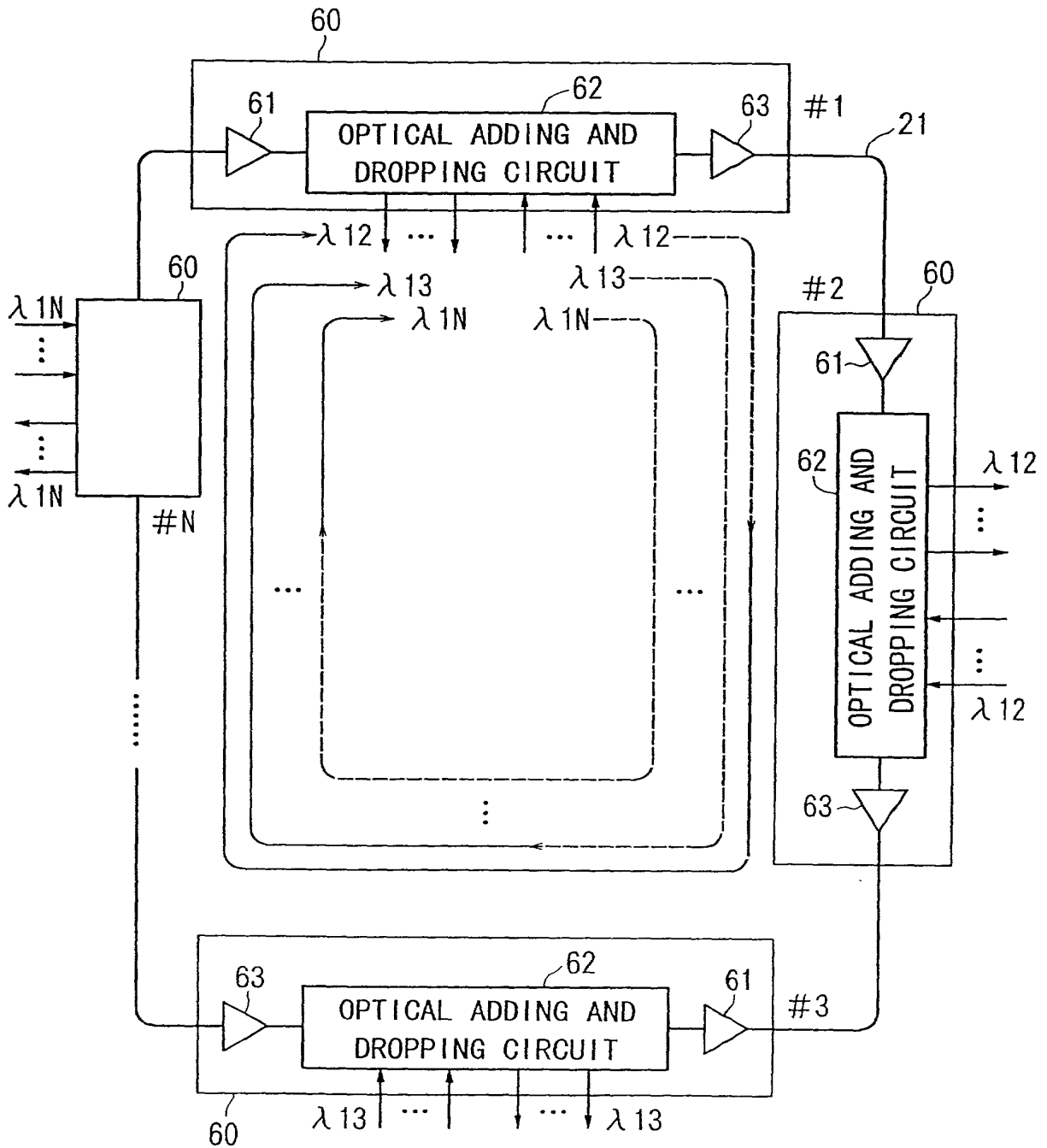


FIG.8

LOSS CHARACTERISTICS OF AN ON-SITE
OPTICAL FIBER FOR COMMUNICATION

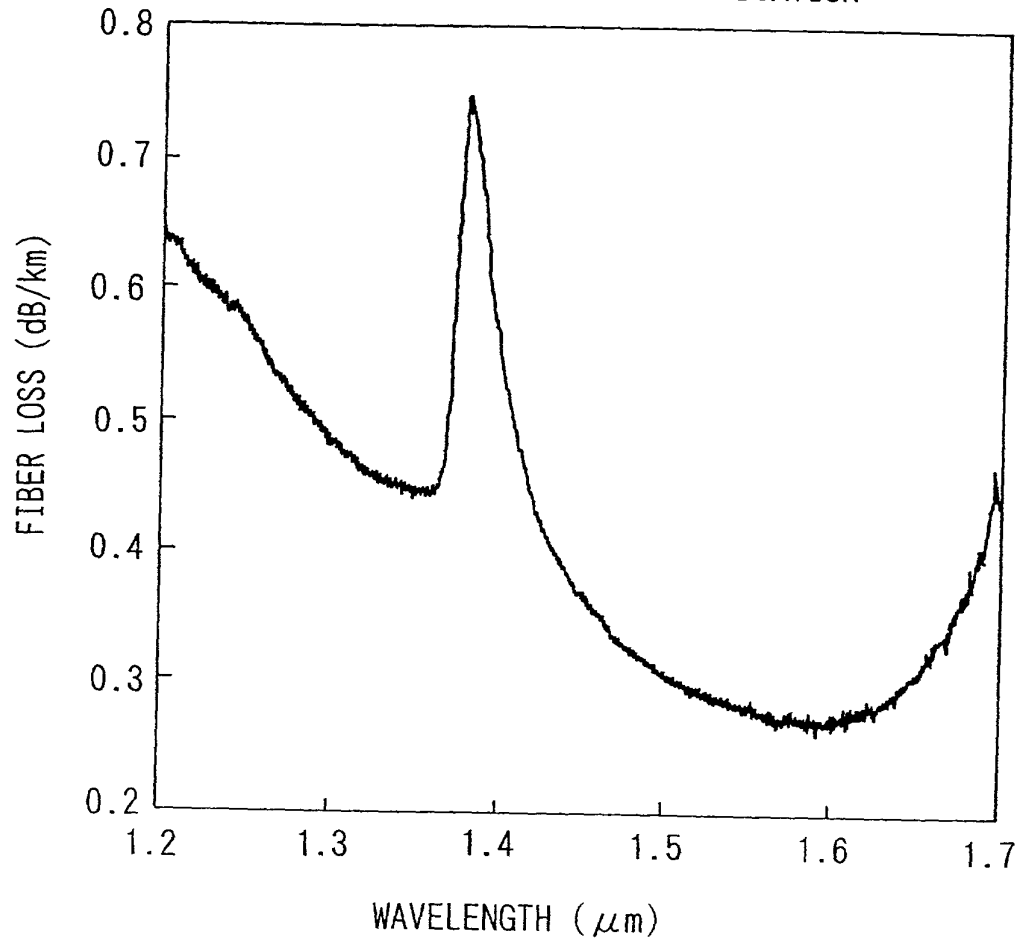


FIG.9

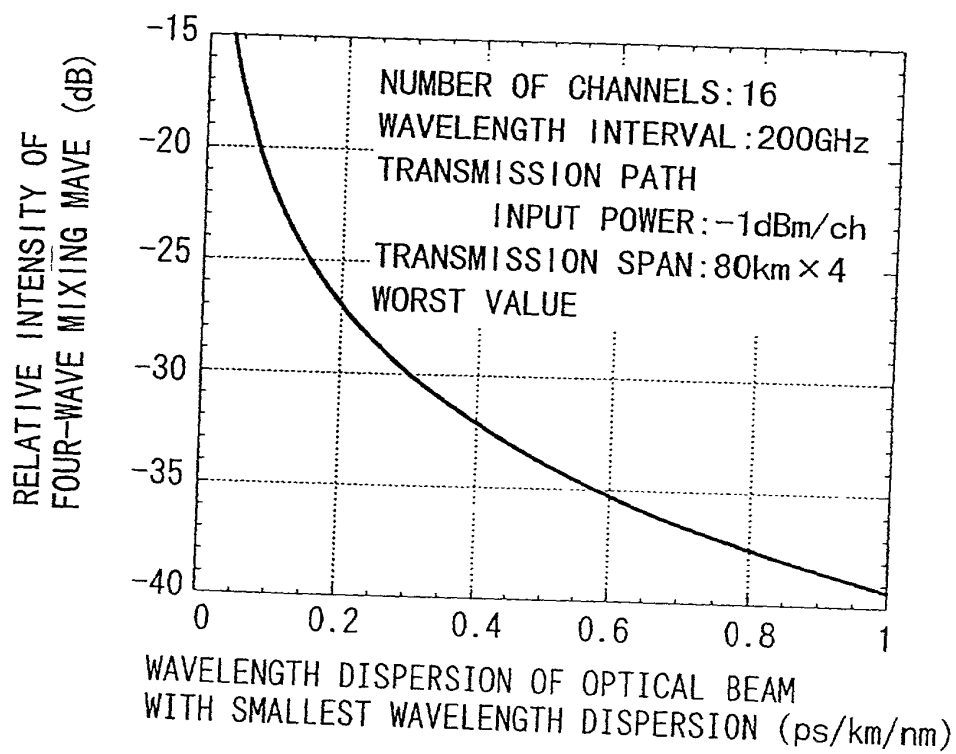


FIG.10

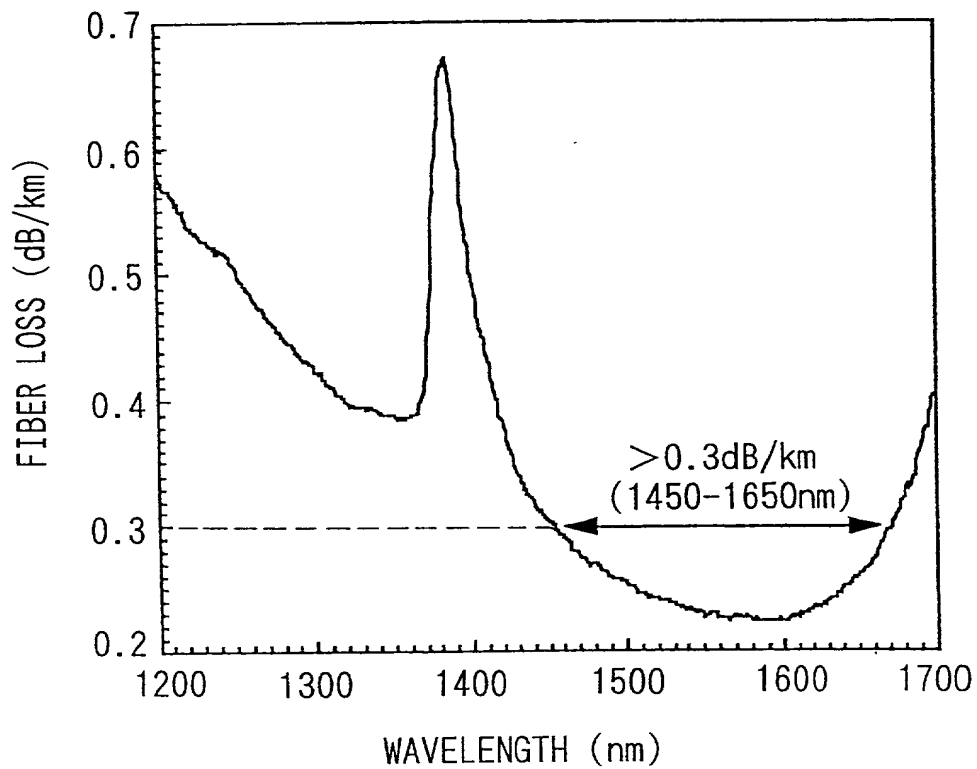


FIG.11

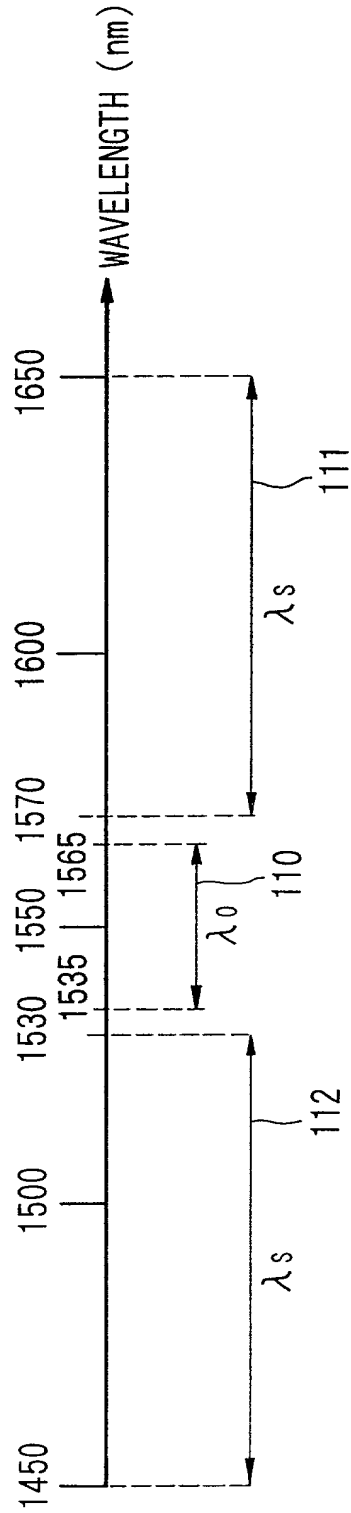


FIG.12

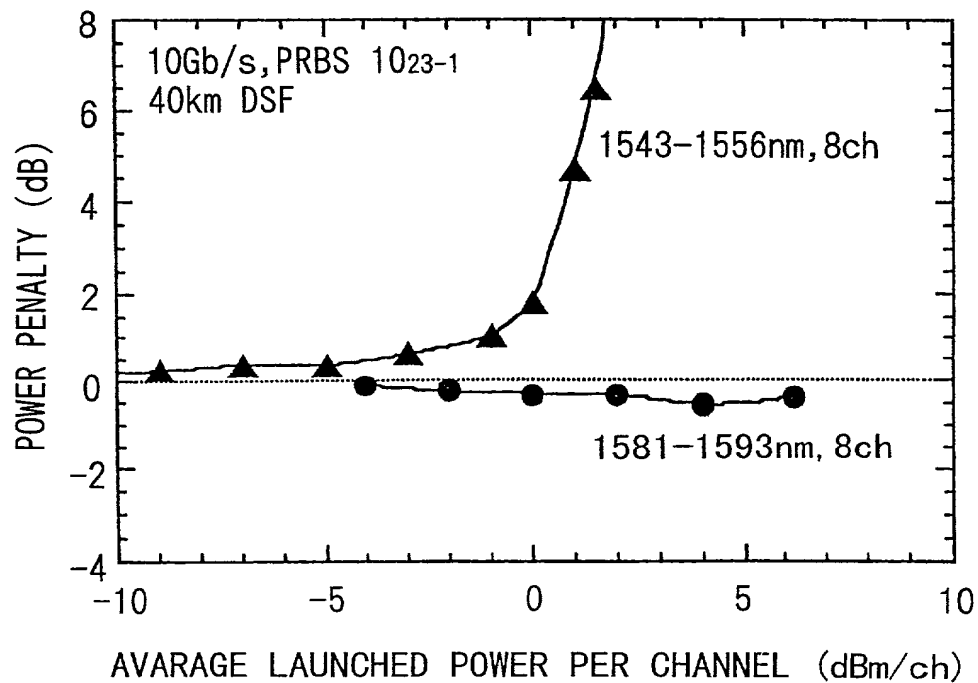


FIG.13

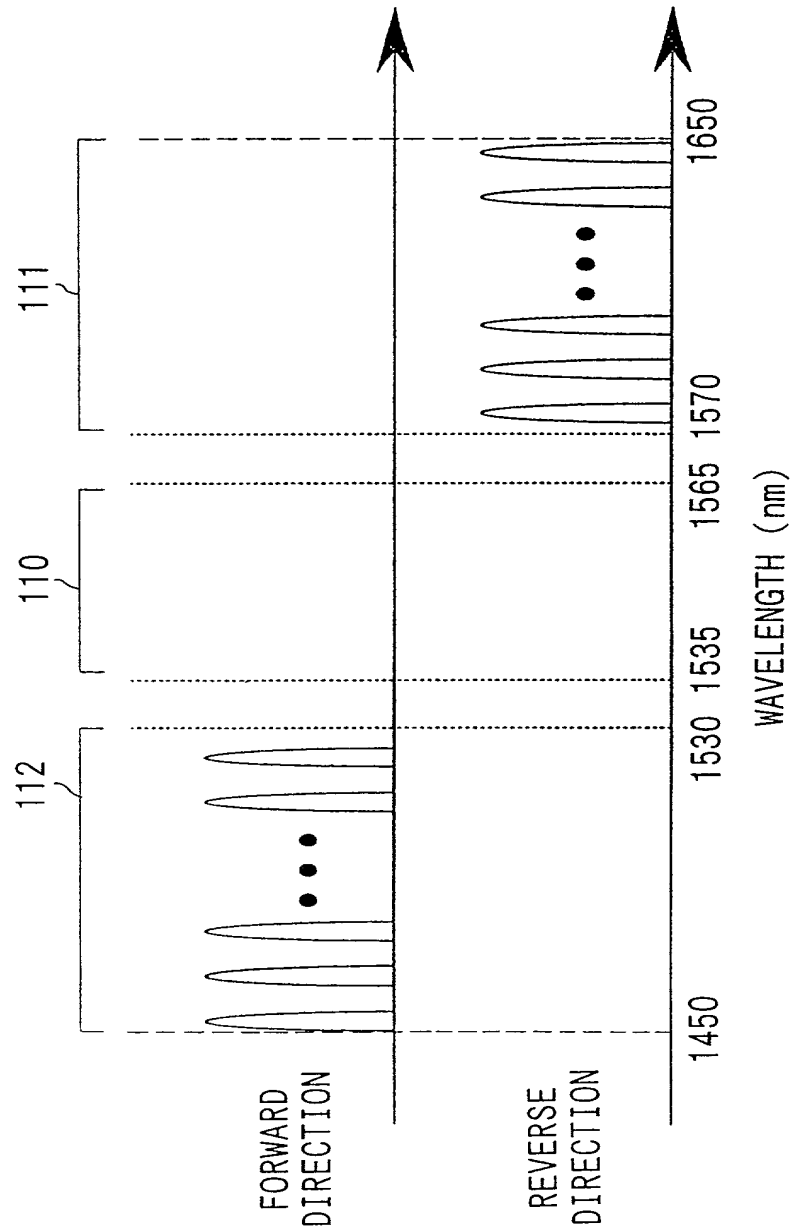


FIG.14

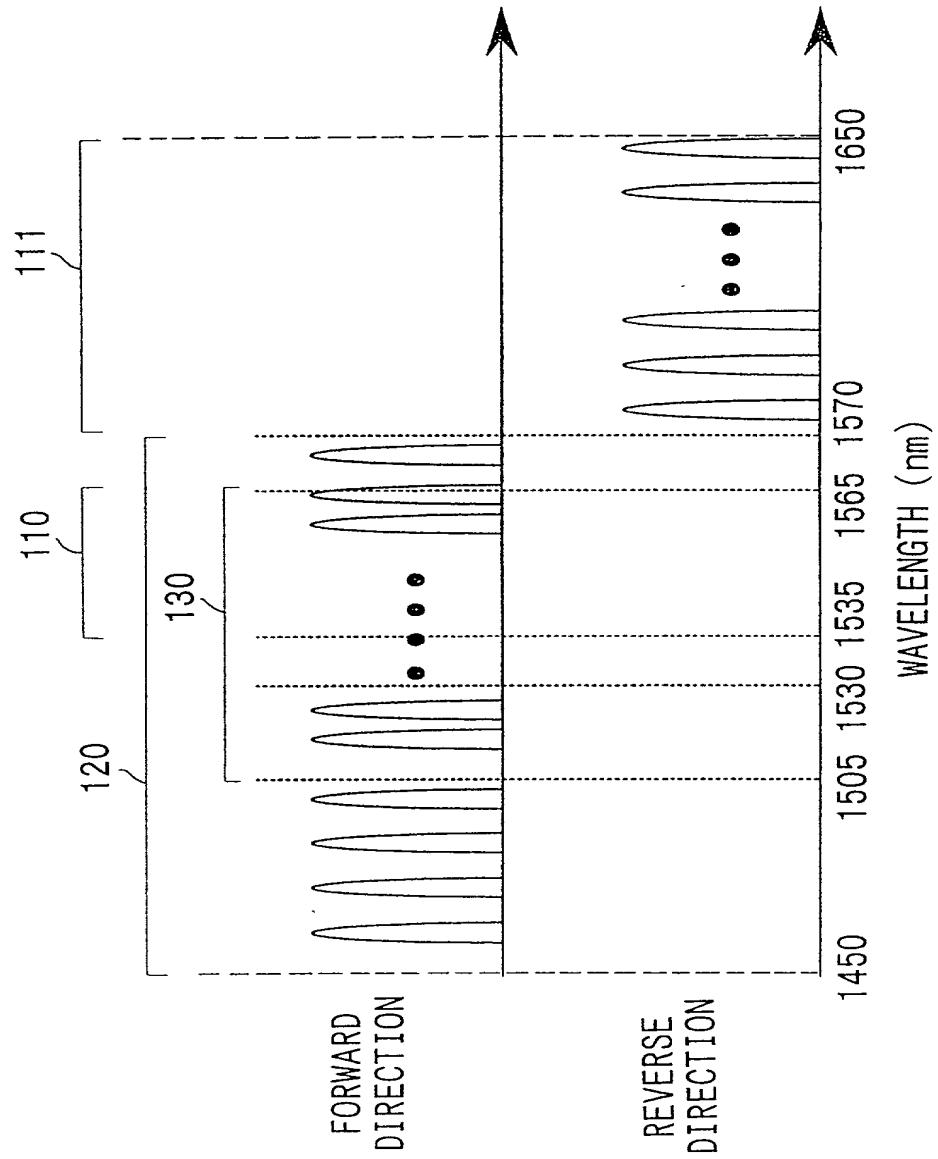


FIG.15

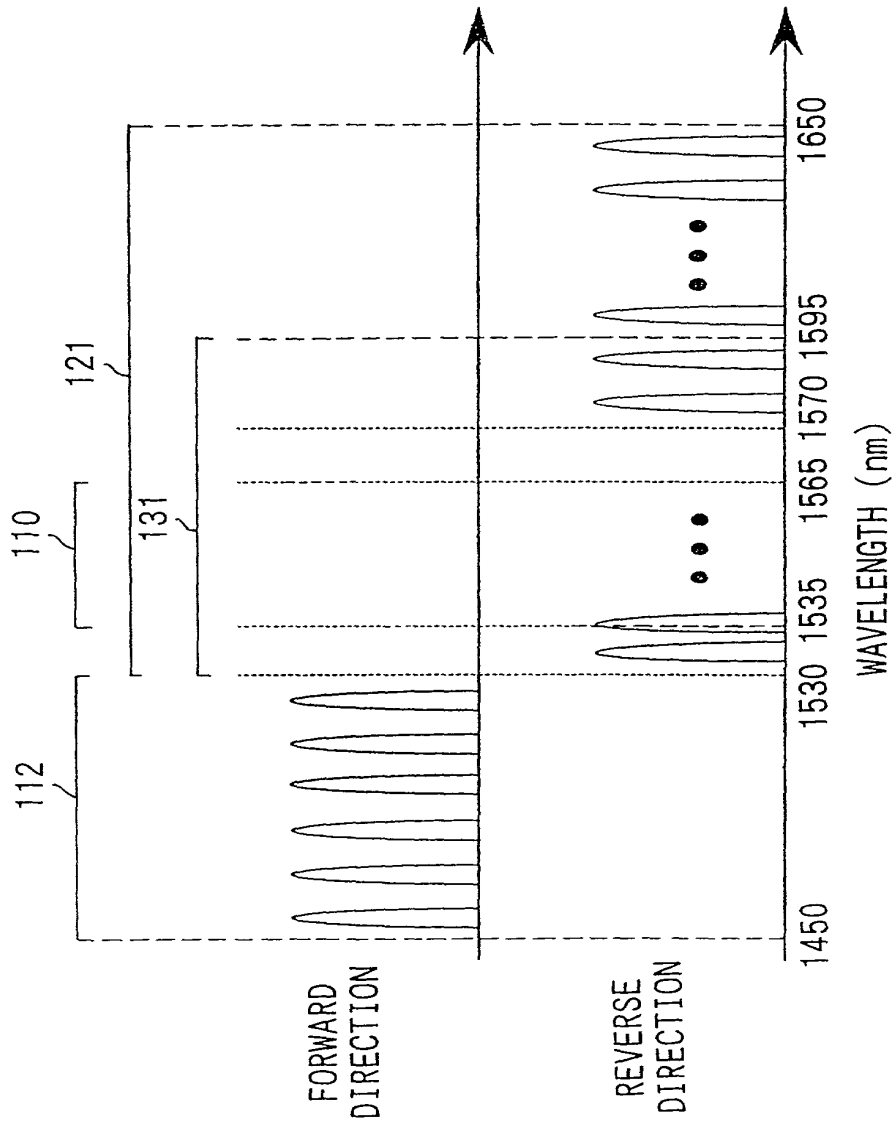
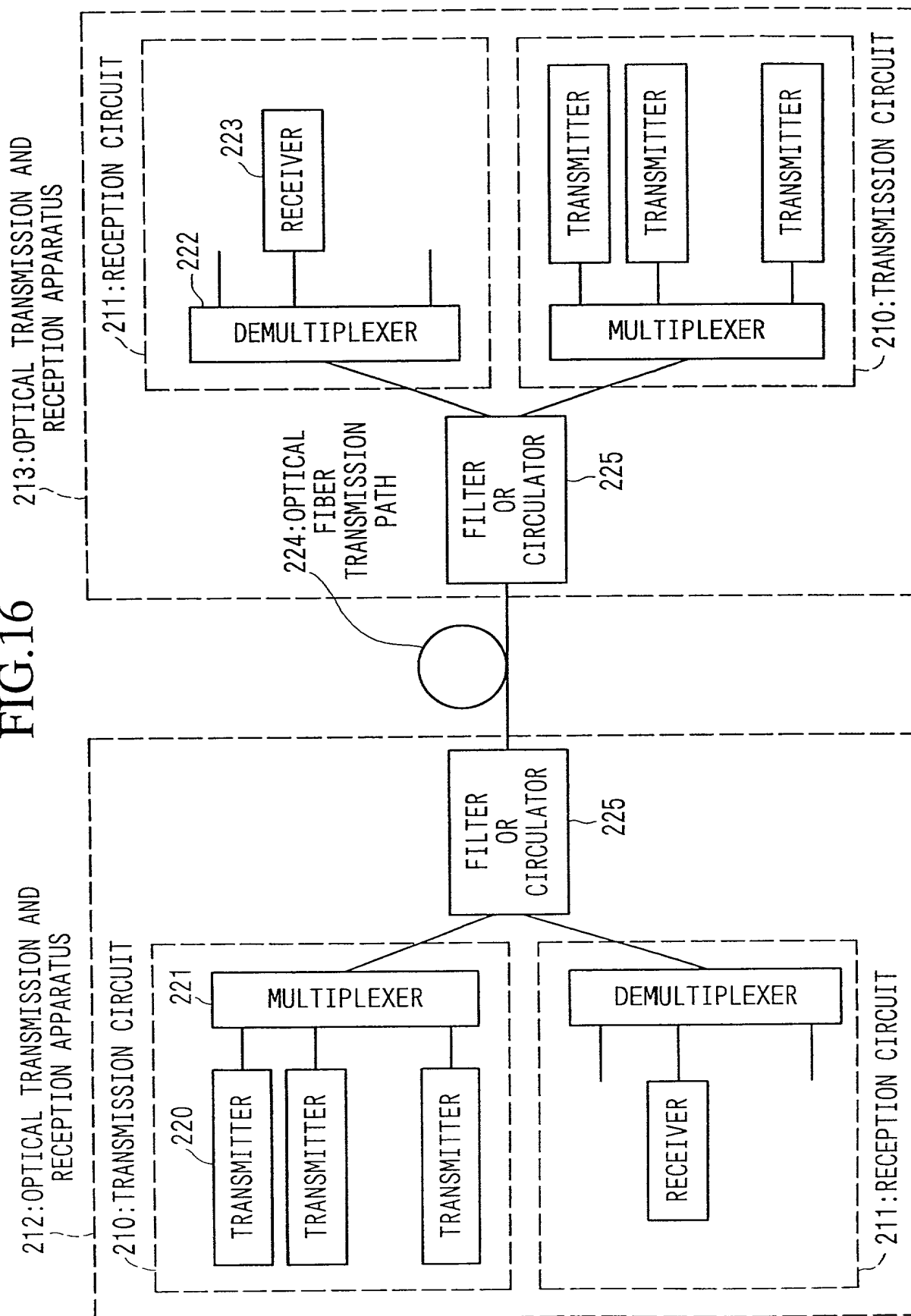


FIG.16



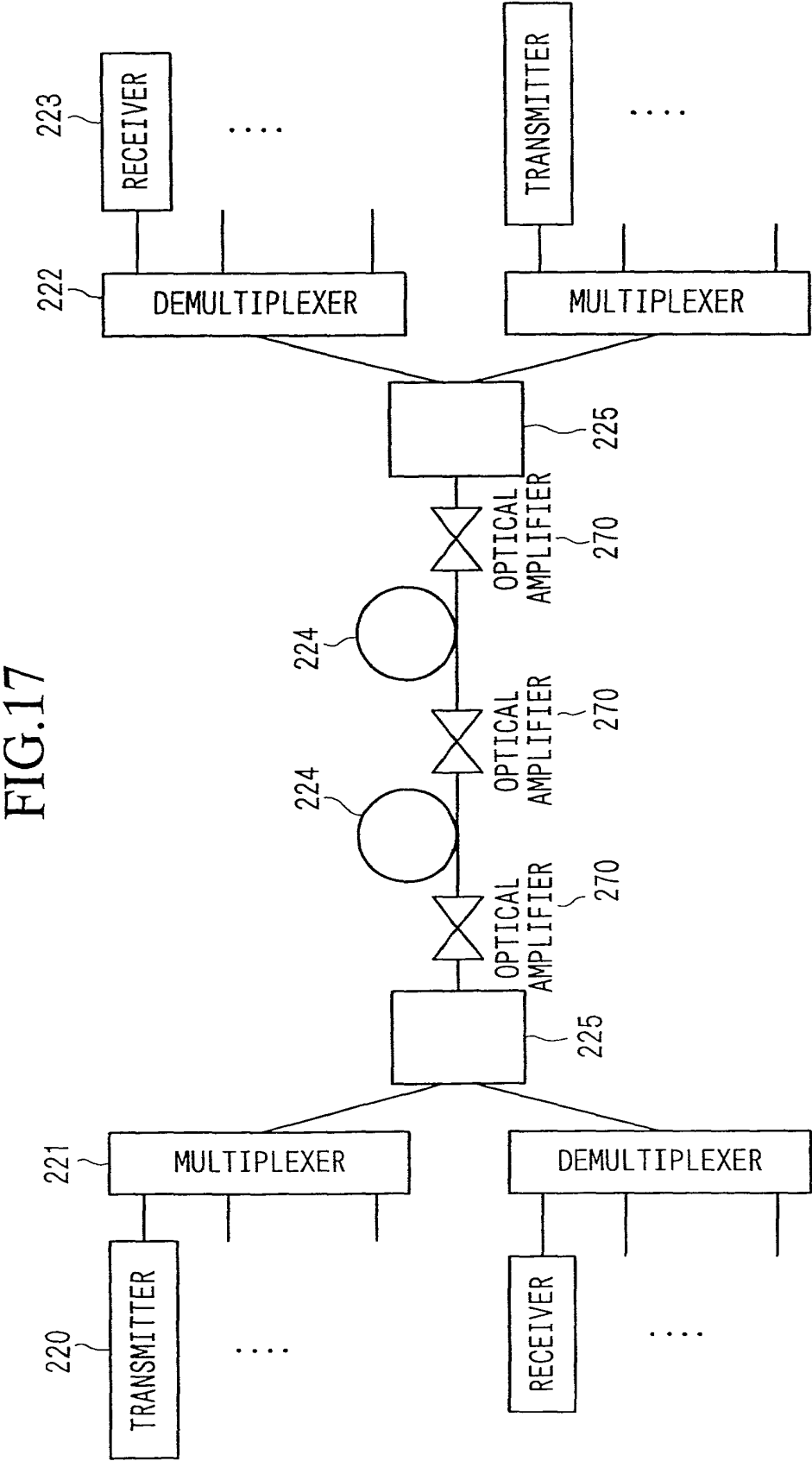


FIG.18

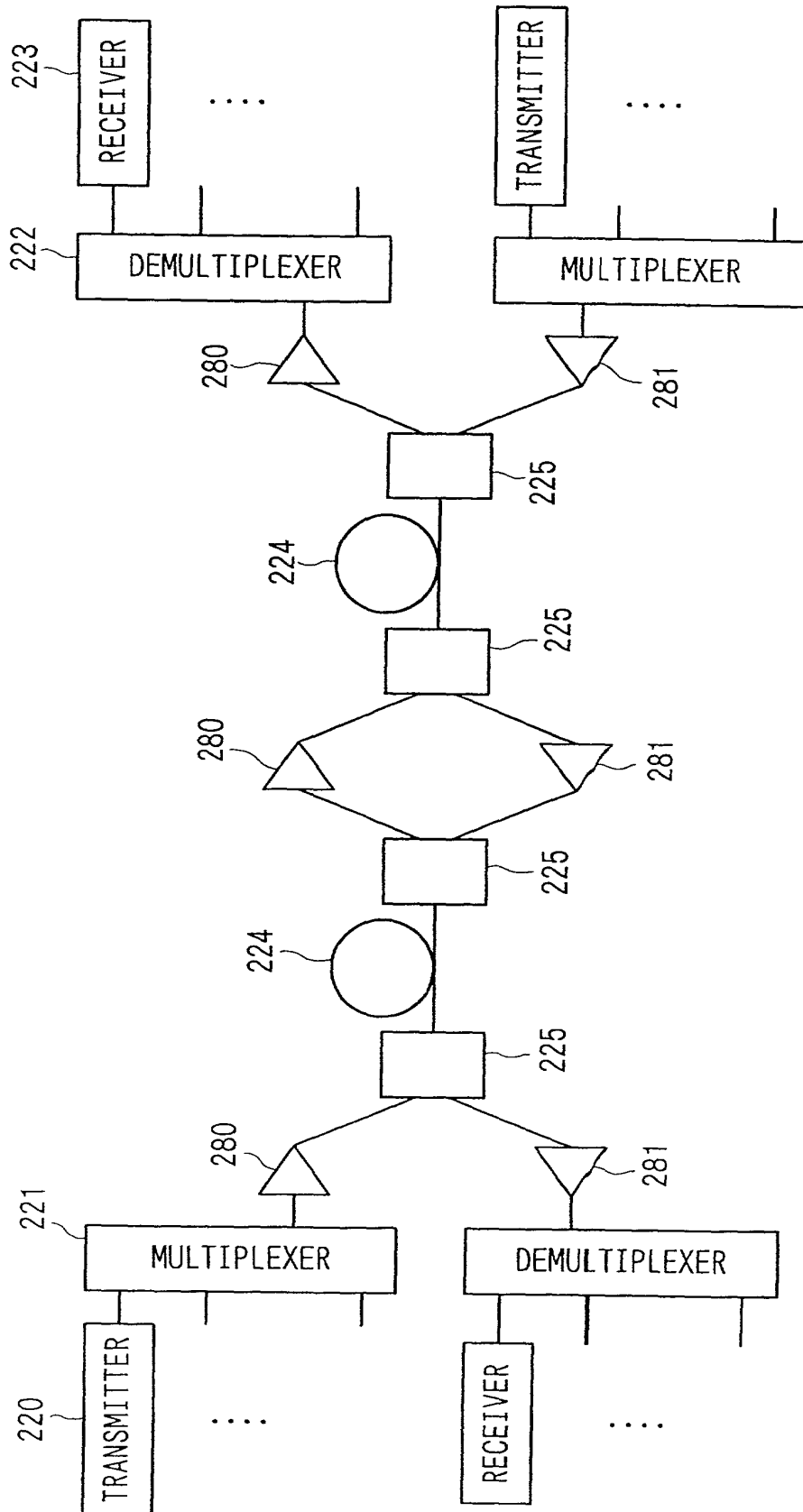


FIG.19

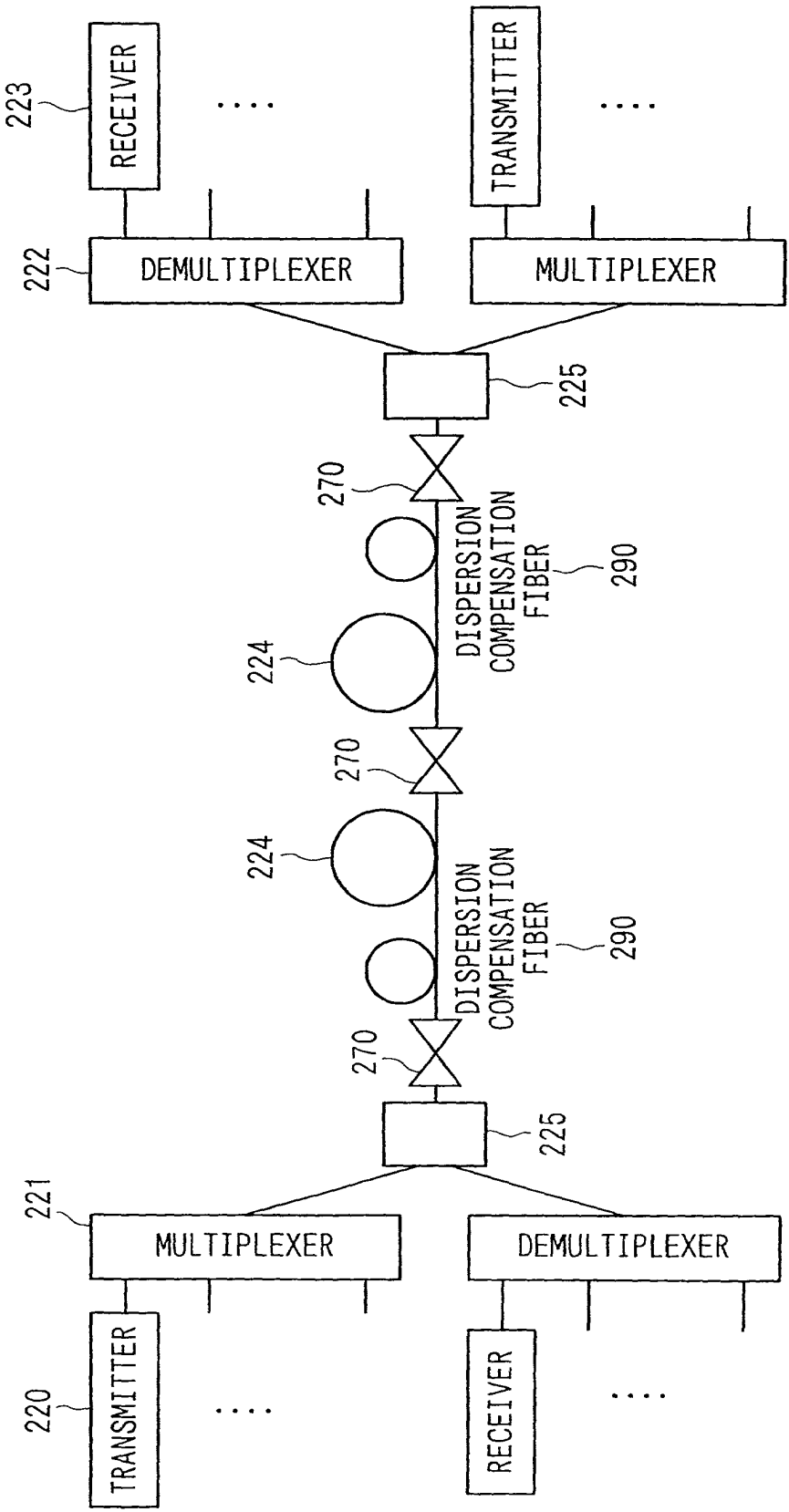


FIG.20

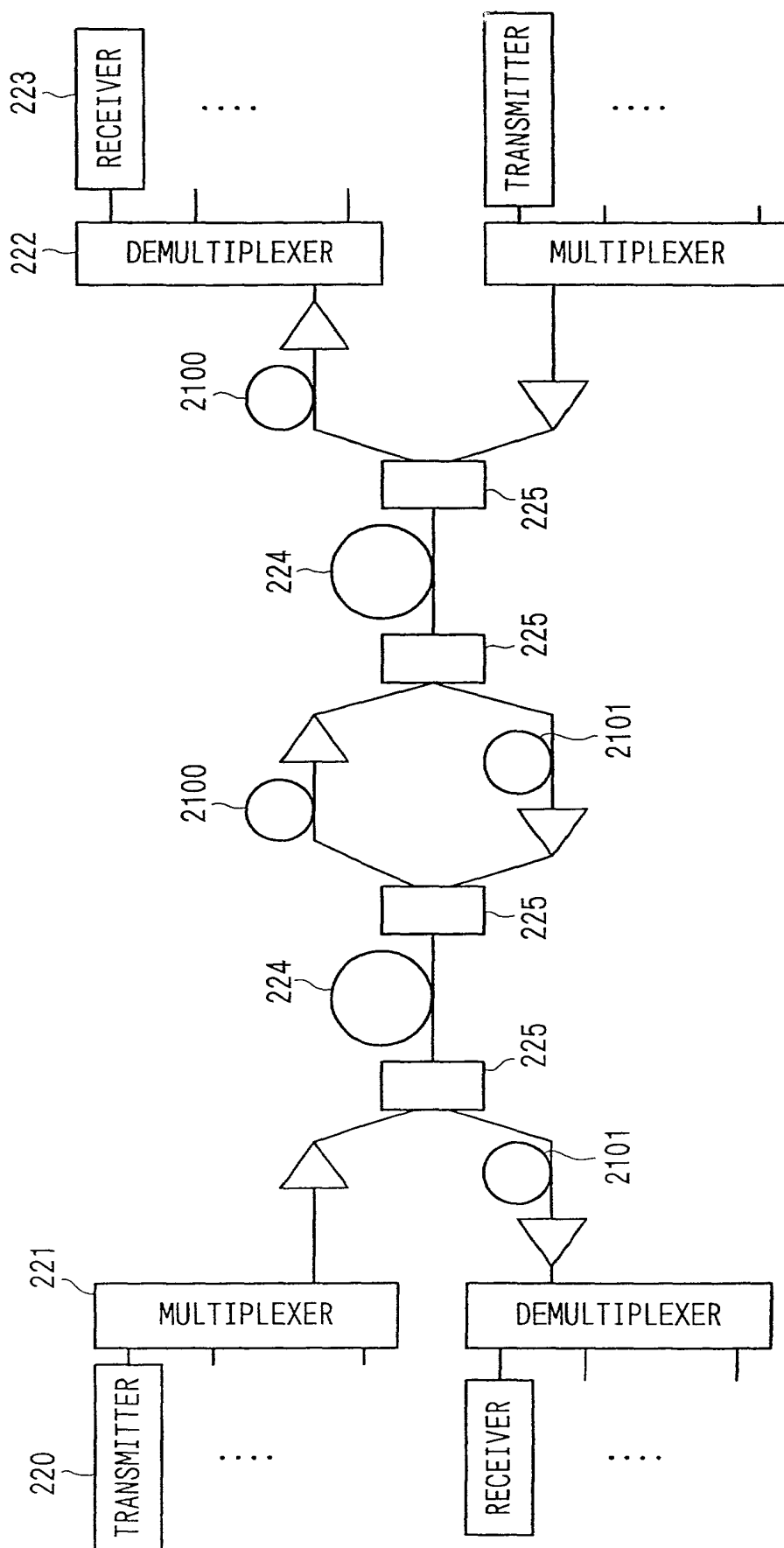


FIG. 21

